FINE Vu

FULL HD BLACK BOX

CR-200HD VEHICLE VIDEO RECORDER

Vehicle HD Video Recorder Manual

FINE DIGITAL

Thank you for purchasing a Fine Digital black box.

Fine Digital Inc. always strives to listen to our customers.

This manual contains the descriptions and operating methods for the black box.

Before you use the product, please read this manual carefully.

This manual is based on Fine Digital's CR-200HD, and there may be technical or editorial errors or omissions in the contents.

The performance of the product is subject to change without notice.

Warranty and Support

1. Our website address is http://www.FineVu.com.
2. You can download the latest firmware and user manual from our website.
3. No form of guarantee is provided in case of sales activities or validity that has not permitted by Fine Digital Inc.

Copyright and Trademark

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2. Other than an incident permitted under copyright law, no part of this User Manual may be reproduced, altered or translated in any form without written consent from Fine Digital Inc.

Certification

Device for business (class A)_Information and telecommunication device

Please note that this device is used for business (class A) and has been EMC registered. This is intended for use outside the home.

1. Device Name (Model): Vehicle Video Recorder (CR-200HD)
2. Certification No.: FDK-CR-200HD (A)
3. Certified Company: Fine Digital Inc.
4. Manufacturer/ Country: Fine Digital Inc./ Republic of Korea
5. Contact No. for A/S: ☎ 1588-6945

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Chapter 1

Before You Start

Chapter 01

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1-1 Precautions

DANGER

Failure to handle the product properly as below may result in dangerous situations such as severe injury or death. Fine Digital Inc. is not liable for any accidents arising from not following the precautions.

Do not disassemble or modify this product arbitrarily.

- This may result in electric shock, product failure or data loss.
- Contact the agency where you purchased this product or the A/S center for internal inspection, maintenance or repairs.

Do not use a damaged cigar jack cable or a damaged USB cable.

Doing so may result in electric shock or fire.

Do not use this product in a place where there is a danger of exposure to flammable or explosive gases in the air.

This may cause it to ignite or explode.

Remove the power cable from the product if you are not using it for an extended period of time.

- Failure to do so could discharge the battery or cause a fire.
- Any damage to the product and your vehicle is your sole responsibility.

Quickly turn the black box off if water or a foreign object has penetrated the black box.

Contact the A/S center for repair.

Plug in the power cable firmly to prevent it from moving.
Incorrect contact may cause a fire.

Do not insert flammable substances or let them get into the memory card slot of your black box.

This may result in electric shock or fire.

1-1 Precautions

Do not operate the product with wet hands.
It may result in electric shock.

Do not operate the black box while driving.
It may cause a car accident.

Only use this product within the rated voltage.
Failure to do so may result in explosion, fire or product failure.

Do not spray water or wax directly onto this product when cleaning the inside of your vehicle.
This may result in product failure or electric shock.

WARNING

Failure to handle the product properly as below may result in dangerous situations such as severe injury or death. Fine Digital Inc. is not liable for any accidents arising from not following the precautions.

Do not leave the product within reach of a child or a pet.
- They may swallow small components. [Micro SDHC card or card socket cover]
- They may be injured by a corner of the black box.
- A pet's saliva may get into the inside of the battery, and cause a short circuit or an explosion.

Using the black box for an extended period of time increases its internal temperature and the temperature of the battery.
Excessive heat may cause the black box to malfunction or to stop. In the event of this happening, ventilate the vehicle and cool it down using the air-conditioner.

1-1 Precautions

Ensure that you install the product in a position where it won't obstruct your view.

Failure to do so may result in an accident.

Do not leave the black box in a place with a high temperature, such as in the closed vehicle or in direct sunlight.

Doing so may affect the exterior of the black box or its internal components, and cause a fire. Ensure to park your vehicle in an underground parking lot or in a shaded area when parking for an extended period of time.

Do not cover the black box with a cloth or a blanket.

Doing so may deform the product or cause a fire due to continuous heating. Always use the vehicle video recorder and its peripheral devices in well-ventilated conditions.

CAUTION

Failure to handle the product properly as below may result in dangerous situations such as severe injury or death.
Fine Digital Inc. is not liable for any accidents arising from not following the precautions.

When you use the black box for an extended period of time, the internal heat it generates may cause your skin to burn at the contact area if touched.

In case you need to move while recording, remove the cigar jack cord from the black box and turn it off. Check that all other peripheral device cables have also been removed before you move.

Failure to do so may result in damage to the cord or cable and cause a fire or electric shock.

Do not apply excessive force to the lens and the black box since it may cause product failure.

1-1 Precautions

Excessive tinting on the windshield may change the balance of the video.

The video quality may degrade in the afternoon with severe backlight, or at night, or when you enter a tunnel.

Foreign objects on the lens may affect the recording.

If the product is damaged or the power is shut off due to an accident, the recorded video may be problematic.

Do not press the Reset button with an awl or a sharp object.

Doing so may cause breakage and/or product failure.

Consult an expert for the connection of the uninterrupted power.

Connection methods may vary depending on the type of vehicle. Incorrectly connecting the uninterrupted power may result in vehicular or product failure. Any damage to the vehicle or the product is your sole responsibility.

1-2 Product & accessories

Black box

Mount

USB cable

2 video output cables

USB SD card reader

Cigarette jack cord

5 clips for arranging cables

1 piece of double-sided tape for the installation of the mount

Manual

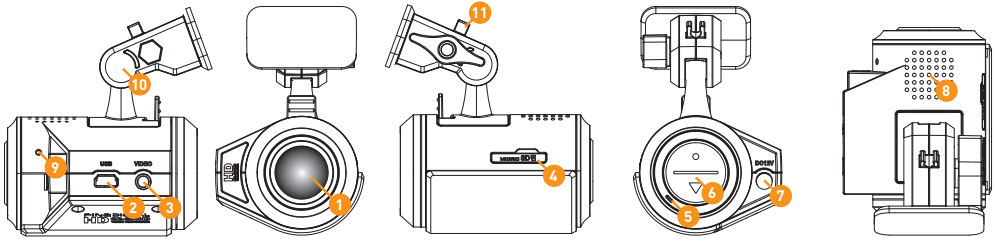
Micro SDHC card & adapter

A Video output cable [4-pole to RCA]

B Video input/output cable [compatible with other Fine Digital products (4-pole to 4-pole)]

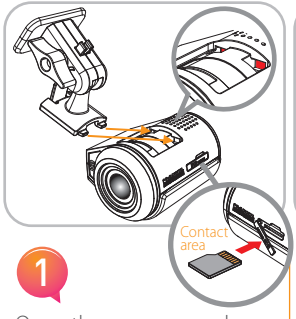
※ The components of this product are subject to change without notice to improve its performance. If you want to order accessories other than the basic components included with the black box, you need to purchase them separately.

1-3 Name of each part



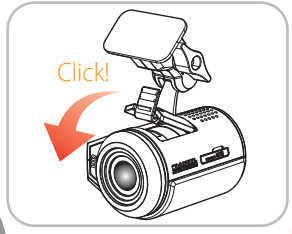
1 Camera lens	Captures images and video of objects in front of the vehicle.
2 USB port	Provides power to the product when it is connected to a PC, and is used when you play recorded video or move it to a storage device.
3 External output port	Lets you view video in real-time. (Output via composite (NTSC signal))
4 Memory card slot	Lets you insert a Micro SDHC memory card.
5 Microphone	A built-in microphone records sounds.
6 Shooting/power/record button	●: Lets you capture images or turn the product on/off (when the built-in battery is in use.) ▼: Lets you record video and switch modes (during parking/when connecting to USB)
7 Power jack	Lets you insert a power cable (cigarette jack cord).
8 Speaker	Alerts you to the operating status of the product with alarms and voice. (Power, recording, pictures, impact, etc.)
9 Reset	Lets you reboot the product by pressing this button when it stops functioning (when the LED does not flash).
10 Mount	Used when you mount the product in your vehicle.
11 Mount cable holder	Used when you hold the cigarette jack cord in place and tie it neatly.

Inserting memory card and attaching black box to the mount



1

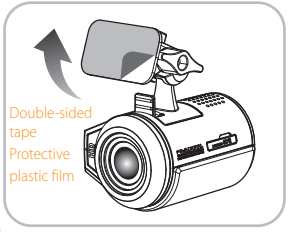
Open the memory card cover and insert the memory card with the contact area facing upwards. Then lock the two bumps on the mount into the corresponding holes on the black box.



2

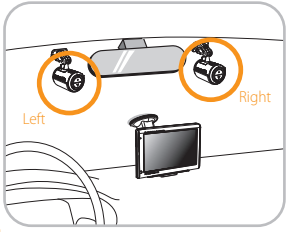
Push the mount in the direction of the arrow until it makes a "clicking" sound and check that it is attached properly.

Installation in vehicle



3

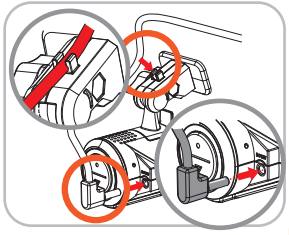
Remove the protective plastic film from the double-sided tape on the mount.



4

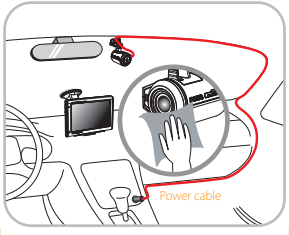
Mount the black box on the left-hand side (driver's seat) or the right-hand side (passenger's seat) of the rear-view mirror so that it does not obstruct your view. Face the lens outwards.

Fixing position and angle of view



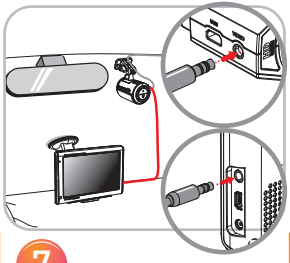
5

Insert the power cable into the "DC12V" jack.
Hold the power cable in place by inserting it into the mount cable holder.



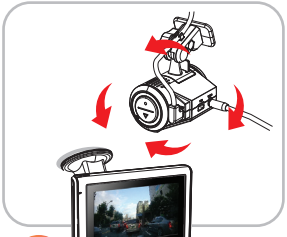
6

Plug the cigarette jack cord into the cigarette jack.
Neatly tie the cable in the corner of the vehicle so that it does not obstruct your view by using the mount cable holder and clips.



7

Connect the signal cable from the "VIDEO" port of the black box to the "AV IN" port of your GPS navigation device.

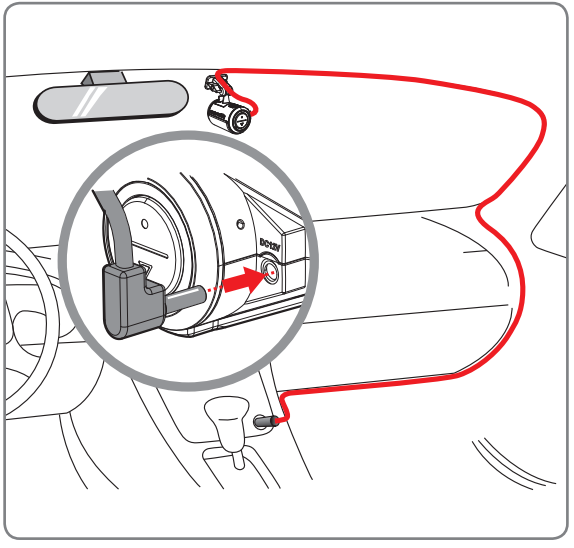


8

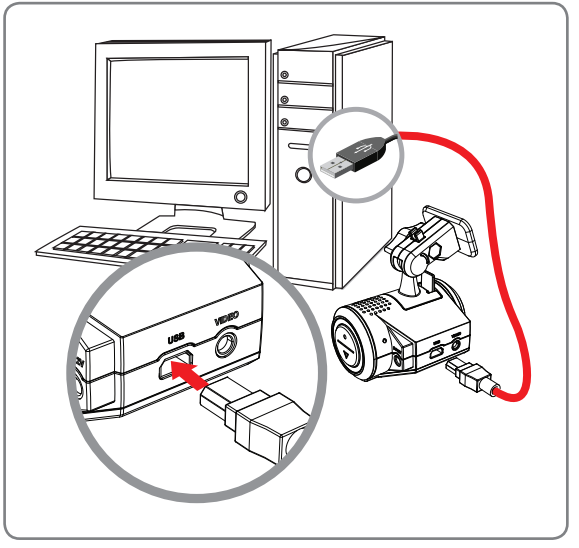
Start the external input on the GPS navigation system. Look at the navigation screen and adjust the shooting position by moving the black box up/down/left/right.
(The resolution of the video displayed on the navigation screen and the actual recorded video may differ.)

1-5 Connecting power

Using the cigarette jack cord



Connecting the USB cable to a PC



1-5 Connecting power

Only use the cigarette jack cord or the USB cable that came with the black box.

Built-in battery specifications

Battery type	Li-Polymer	Charging time	Approx. 120 mins
Cell capacity	150 mAh	Purpose of use	For manual recording in an accident or RTC
Voltage	3.7 V	Operating time	Approx. 10 mins (for recording video)

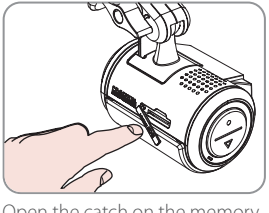
Careless handling of the built-in battery may result in overheating, fire or an explosion.
When you handle the black box, ensure the following:

- ! Only use the designated original cigarette jack cord.
- ! Do not keep or use the black box in a place with a high temperature or humidity, such as a sauna.
- ! Do not place or use the black box on a blanket, an electric mat or a carpet which may generate heat or static electricity for an extended period of time.
- ! Do not place the black box in the vicinity of a fire.
- ! Do not impact the black box by throwing or dropping it from a high place.
- ! Do not let the black box come into contact with damp or water.
- ! Avoid direct sunlight when you park your vehicle in summer.
- ! It may be dangerous when the black box is not charged, when there is smoke coming from the black box or when there is liquid leaking from the battery. (Contact the manufacturer or the agency immediately.)

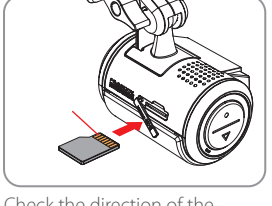
1-6 Memory card

Use a Micro SDHC memory card.

Inserting the memory card



Open the catch on the memory card slot.



Check the direction of the memory card carefully when you insert it, and close the catch on the memory card slot.
(Face the contact area upwards when you insert the memory card.)

Precautions when using the memory card

- Turn the black box off before you insert or remove the memory card. (Recommended)
- Use the original memory card that came with the black box. (Recommended)
- A memory card has a lifespan for writing/reading.
  A data writing error may occur when you use it for a long time.
  Purchase a new memory card.
  (Please note that Fine Digital Inc. is not liable for data errors or failure to write due to writing/reading for an extended period of time.)
- Do not impact, bend or drop the memory card.
- Do not use or keep the memory card in an environment where strong static electricity or electrical noise may occur easily. (Special attention is required when keeping it in a place with high temperatures and humidity.)
- Ensure that there is no dirt or foreign objects on the memory card contact area. (Wipe off with a smooth cloth.)
- Do not remove the memory card while shooting. Doing so may corrupt the data on the memory card.
- Save important data on your PC or mobile device.
- Only use the memory card provided with the black box.
  Using other memory cards used in other types of black boxes may cause a malfunction when recording.
- Static electricity generated when the memory card is carried or stored may corrupt the data.
  Therefore use a protective memory card case.

1-6 Memory card

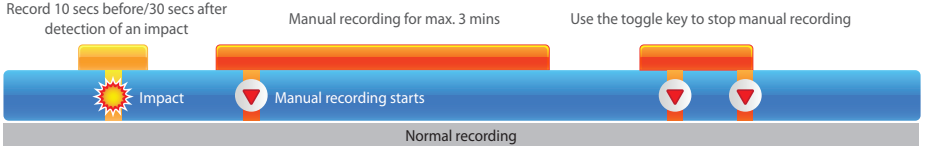
Micro-SDHC card memory map: 8 GB for 4 hrs (4 GB for 2 hrs/ 16 GB for 8 hrs)

Category	Normal recording	Image capturing	Shock recording	Manual recording	Remarks
4 GB Micro SDHC	Record in 3 minute intervals while driving, max. 20 videos	2 MP images, max. 200 images 1 MP images, max. 400 images	Shock recording for 40 secs, max. 60 videos	Toggle the REC button Manual recording for 3 mins, max. 7 videos	720p 30fps H.264 encoding / 4 Mbps
	60 mins	200 ~ 400 images	40 mins	20 mins	30MB/ 1min
[3.7 GB] ~ 2 hrs	1.8 GB	0.1 GB	1.2 GB	0.6 GB	Total 3.7 GB
8 GB Micro SDHC	Record in 3 minute intervals while driving, 120 hrs 3.6 GB	2 MP images, max. 200 images 1 MP images, max. 400 images	Shock recording for 40 secs, max. 120 videos	Toggle the REC button Manual recording for 3 mins, max. 14 videos	720p 30fps H.264 encoding / 4 Mbps
	2 hrs	200 ~ 400 images	80 mins	40 mins	30 MB/ 1 min
[7.3 GB] ~ 4 hrs	3.6 GB	0.1 GB	2.4 GB	1.2 GB	Total 7.3 GB
16 GB Micro SDHC	Record in 3 minute intervals while driving, 240 mins (7.2 GB)	2 MP images, max. 200 images 1 MP images, max. 400 images	Shock recording for 40 secs, max. 240 videos	Toggle the REC button Manual recording for 3 mins, max. 28 videos	720p 30fps H.264 encoding / 4 Mbps
	4 hrs	200 ~ 400 images	160 mins	80 mins	30 MB/ 1 min
[14.5 GB] ~ 8 hrs	7.2 GB	0.1 GB	4.8 GB	2.4 GB	Total 14.5 GB

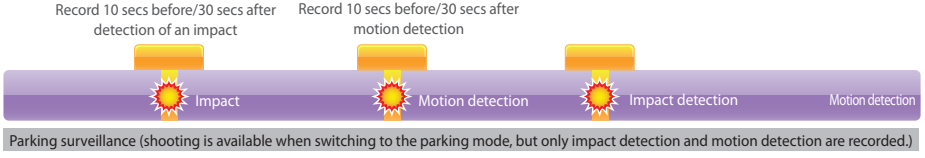
1-7 Black box memory management

Overall memory allocation

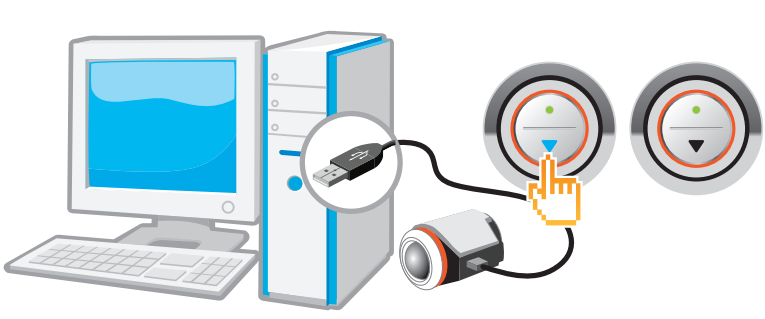
Memory management in Normal recording mode while driving

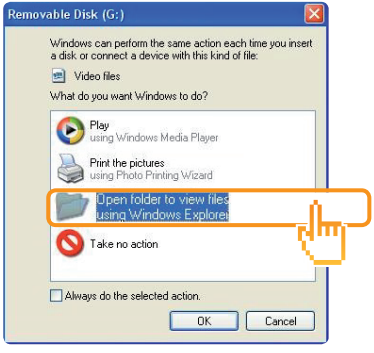

Record 10 secs before/30 secs after detection of an impact
Manual recording for max. 3 mins
Use the toggle key to stop manual recording
Impact
Manual recording starts
Normal recording

Parking surveillance memory management


Record 10 secs before/30 secs after detection of an impact
Record 10 secs before/30 secs after motion detection
Impact
Motion detection
Impact detection
Motion detection
Parking surveillance (shooting is available when switching to the parking mode, but only impact detection and motion detection are recorded.)

Connecting the black box to a PC (USB storage device)




Removable Disk (G:)
Windows can perform the same action each time you insert a disk or connect a device with this kind of file:
Video files
What do you want Windows to do?
Play
using Windows Media Player
Print the pictures
using Photo Printing Wizard
Open folder to view files
using Windows Explorer
Take no action
Always do the selected action.
OK
Cancel

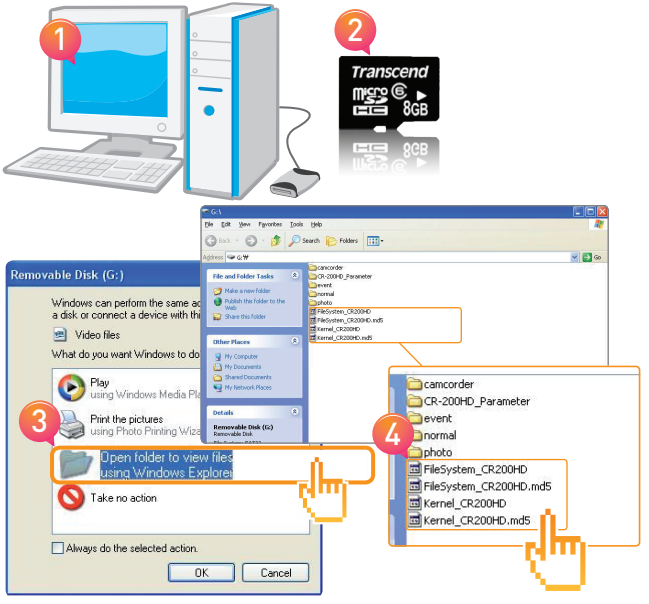
Connecting the black box to a PC:

Connect the USB cable from the black box to the PC and press the ▼ button for 2 seconds in accordance with the voice instructions. The mode then switches to the USB storage device mode and the memory can be read. You can also set the operation of the product using the user setup program. [3. Menu --> See 3-1. User setup program (connecting to PC and executing)]

Note

! You can operate the black box with USB power from the PC.
! Connect the USB cable from the black box to the PC and boot up the black box before accessing the USB mode.

1-9 Firmware upgrade



1. Download the firmware from the website.
2. Remove the Micro SDHC memory card from the black box and insert it into the memory card adapter. Connect the memory card reader to the PC.
   [A Micro SDHC memory card adapter is provided.]
3. When the memory card reader is connected to the PC, it runs as a removable disk.
   (It is recommended that you format the memory card prior to the firmware upgrade.)
4. Click "Open folder to view files using Windows Explorer" as shown in the figure. Unzip the downloaded firmware and copy it to the root directory of the memory card.
5. Insert the memory card into the black box. When you turn the power on, the LEDs will start to blink and the upgrade will start automatically.

6. When the upgrade is complete, the firmware file will be deleted automatically.

Chapter 02

Chapter 2
Using the product

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- Operation with the black box button
- Basic operation information with the ● button colors
- Operation with the ▼ button
- Connecting power
- Recording while driving
- Taking a picture during normal recording
- Completion of recording
- Recording with the built-in battery
- Shooting with the built-in battery
- Booting with the built-in battery
- Recording when parked
- Detection feature for the prevention of the vehicle battery from discharging
- Motion detection
- Enable/Disable voice recording
- Playing video (playing on the GPS navigation device)
- Descriptions of video playback screen

2-3. Status alarms 36

- Attention

2-1 Features

Clear video quality

1. 16:9 wide screen, full HD resolution, high quality video recording
   - 1920*1080 1080p full HD recording, 15 fps H.264
   - 1280*720 720p wide angle recording, 30 fps H.264
   - 1280*720 720p standard recording, 30 fps H.264
2. Capturing recorded video or magnifying an image does not degrade the image quality.
3. CMOS sensor with 1920x1080 effective pixels.
4. High resolution, 116°horizontal wide angle camera lens [Diagonal 133°/ Horizontal 116°/ Vertical 68°]

Recording during parking

1. Record during parking using the vehicle's uninterrupted power
2. Monitor to prevent the vehicle's battery from discharging
3. Record video when there is impact when the vehicle is parked through sensitive detection of the acceleration sensor.

Recording while driving/ capturing images/ manual recording

1. Normal recording while driving: Every 3 minutes
2. Auto event recording: 10 secs before/ 30 secs after: a 40 sec file
3. Manual recording: 10 secs before/ 2 mins 50 secs after pressing the button: a 3 min file
4. Deleting auto recorded video
   [If there is insufficient storage space, video is automatically deleted in order from the oldest to the newest.]
5. Shooting high resolution pictures:
   - 1920*1080 2 Mpixels JPEG pictures [Full HD mode]
   - 1280*720 1 Mpixel JPEG pictures [HD mode]

Motion detection when parked

1. Motion detection recording when parked, using the vehicle's uninterrupted power source.
2. Recording by detecting movements on the screen when parked

2-1 Features

Voice recording and audio output

1. Vivid audio recording with a high sensitivity microphone [Mute available]
2. Clear sound effects/voice guidance with a speaker [You can adjust or turn off the volume]

Built-in battery

1. Even when the ignition is turned off in an accident, the built-in battery enables the black box to shoot pictures and record video [max. 10 mins]
2. The built-in battery supplies power to the RTC (Real Time Clock): You can set the system time with the setup program after connecting the black box to the PC.

Operating power

1. You can operate the black box with the cigarette cord power (12 V)/ uninterrupted power (12 V)/ USB VBUS power (5V)
2. When you connect the uninterrupted power cable, you can record video when parked with the voltage from the vehicle battery.

Real-time video display

1. You can view video in real-time on the VGA screen. [Video output cables are provided.]
2. You can view video via the VGA AV-In port of the GPS navigation and digital media devices.

Playback mode for recorded video

1. When you access the Playback mode, you can play the video on the SD card with the GPS navigation and digital media devices.
2. Play files in order, from the latest to the oldest, with the button.
3. Replay (replays a file)

2-1 Features

Mounting structure

1. When you install the black box onto the windshield, you can adjust it up and down and rotate it 360 degrees horizontally
2. When you install the black box onto the windshield or the dashboard, the screen automatically flips vertically in accordance with the installed direction, without adjustment.
3. Easy removal of the black box from the mount

Connecting to PC

1. Direct connection with the black box via the USB port.
2. Direct connection with the USB memory by pressing the ▼ button for 2 secs. [USB storage device recognition]
3. Embedded PC setup program
4. Play recorded video with a normal video player. [Windows Media Player, GOM Player, KMPlayer, etc]

Adjust the brightness of the video in 3 levels at night

You can adjust the brightness of the video at night in low lighting conditions.

Expand memory

You can easily expand the memory (Micro SDHC).
[4 GB/8 GB/16 GB]

Memory management

Normal recording 50% (minimum)/ shock and parking recording 30% (maximum)/manual recording 20% (maximum).

2-2 Basic operation

Operation with the black box button

	Color	Operational description and status display
	Yellow White	Booting is in progress (less than 30 seconds.)
	Green X	The black box is recognized as a removable disk in the USB mode.

2-2 Basic operation

Operation with the black box button

	Color	Operational description and status display
	Green	Indicates the power is supplied by the cigarette cord (12V) or PC USB cable (5V).
	Yellow	Indicates the black box is on battery operation mode.
	Red	Indicates the status when taking a picture. Indicates the parking mode.

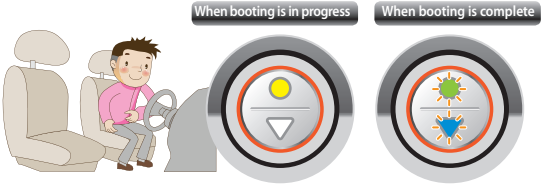
2-2 Basic operation

Operation with the black box button

	Color	Operational description and status display
	Blue	Indicates normal recording.
	Yellow	Indicates shock detection recording.
	Red	Indicates manual recording (the user's urgent recording).
	Purple	Indicates playback mode switchover/ motion detection in parking mode.

2-2 Basic operation

Connecting power



When you switch the vehicle power to ON or start the ignition, the LEDs on the button turn on.

When booting is in progress:

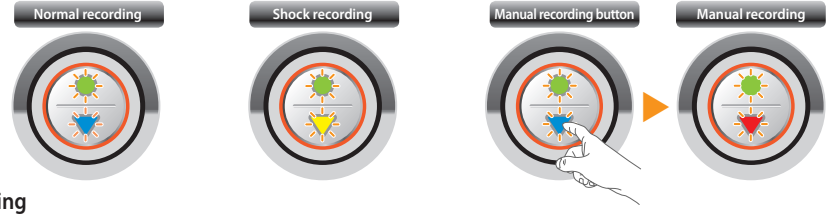
- button: yellow LED / ▼ button: white LED, booting time: less than 30 seconds

When booting is complete:

- button: green LED (flashing) / ▼ button: blue LED (flashing)

2-2 Basic operation

Recording while driving



Normal recording

● button: green LED (flashing)/ ▼ button: blue LED (flashing). Video is recorded and stored in the **"normal"** folder on the memory card.

Shock recording

When shock is detected (running into a car, hard braking, speed bumps, etc), video is recorded and stored automatically in the **"event"** folder on the memory card. You can set the shock sensitivity. In total, 40 seconds of video footage is recorded from 10 seconds before to 30 seconds after impact.

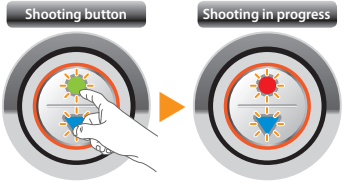
An alarm will sound through the speaker when there is impact. The ▼ button LED will change from blue to yellow, and will flash for 30 seconds.

Manual recording

If you press the ▼ button in Normal Recording mode even when there is no impact to your vehicle, 3 minutes of video footage will be recorded from the moment you press the button, and will automatically be stored in the **"camcorder"** folder on the memory card. An alarm will sound through the speaker. The ▼ button LED will flash red for 3 minutes. If you press the ▼ button once again in Manual Recording mode, the black box will stop manual recording. [The video recorded until the moment you stop recording will be stored in the **"camcorder"** folder.]

2-2 Basic operation

Taking a picture during normal recording



- When you press the ● button in Normal Recording mode, you can take a picture. The shooting alarm will sound through the speaker and ● button LED will flash red when you take a picture. The picture is stored in the **"photo"** folder. (You can take a picture while recording video).
- Continuous shooting is not possible, and you can only shoot again once 3 seconds have elapsed after you pressed the shooting button.

Completion of recording

If you turn off the ignition, the black box stops recording [When uninterrupted power is not used]. It then goes on standby for 30 seconds and shuts down automatically. If you press and hold down the ● button for 2 seconds, an alarm will sound and the black box will shut down.

2-2 Basic operation

Recording with the built-in battery

Starting manual recording

When you turn off the ignition or remove the cigarette jack cord, the black box operates with the built-in battery power. The yellow LED then flashes for 30 seconds.

If you press the ▼ button, 3 minutes of video footage will be recorded from the moment you press the button, and will automatically be stored in the **"camcorder"** folder on the memory card.

When you press the ▼ button, an alarm will sound and its LED will flash red for 3 minutes.

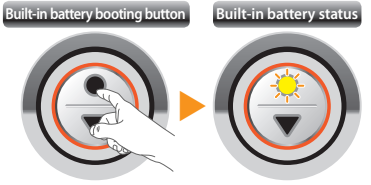
3 minutes after recording the video, only the ● button LED will flashes in yellow, and the status will change to standby. If you press and hold down the ● button for 2 seconds, the black box will shut down.

2-2 Basic operation

Shooting with the built-in battery

- If you press the ● button while waiting for 30 seconds after removing the power, you can take a picture. When you take a picture, the shooting alarm will sound through the speaker and the ● button LED will flash red. The picture is stored in the **"photo"** folder on the memory card.
- Continuous shooting is not possible, and you can only shoot again once 3 seconds have elapsed after you pressed the shooting button.

Booting with the built-in battery

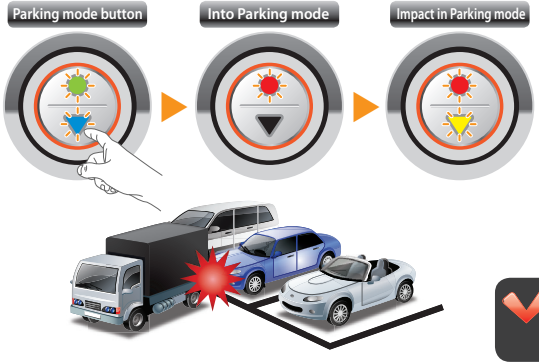


If you press the ● button for 2 seconds when there is no power supplied via the cigarette jack cord, the black box will turn on and the yellow LED will flash. You can then record video manually and also take pictures.

Shooting tips

1. Set a location for shooting (accident spot, damaged part of the vehicle, etc).
2. Focus the lens on the focal point and press the ● button.
3. An alarm sounds and the LED color changes when taking a picture.
4. It is recommended that you take the same picture twice since shake may occur in a picture.

Recording when parked



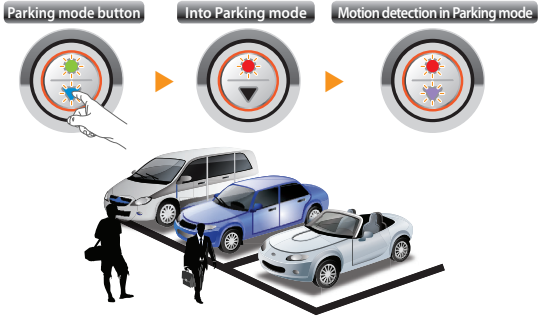
1. If you press the ▼ button for 1 second or if there is no movement of the vehicle for 10 minutes, the mode changes automatically to Parking mode. In this mode, the black box continues to shoot video but does not record unless external impact or motion is detected.
2. Shock recording: If there is an external impact to the vehicle in Parking mode, video will be stored in the "event" folder with a filename "parking".
3. If you press the ▼ button for 1 second again or if driving of the vehicle is detected, the mode changes to Normal Recording mode.

- When you use Parking mode, you need to use uninterrupted power. With the exception of certain vehicle types, uninterrupted power should be connected additionally. Please consult an expert.

Detection feature for the prevention of the vehicle battery from discharging

When you operate Parking Recording mode for an extended period of time using the vehicle's uninterrupted power, the black box stops working if the voltage of the vehicle battery goes down below a certain voltage level so as to prevent the vehicle battery from discharging.
If the battery voltage goes down below 11.5 V, the black box stops working.

Motion detection

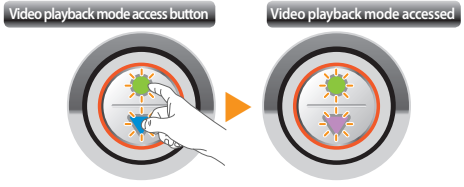


1. In Parking mode, the black box continues to shoot video but does not record.
2. If the black box detects a moving object in Parking mode, it records video 10 seconds before and 30 seconds after the movement of the object and the video will be stored in the "event" folder with a filename "motion".
3. If an external impact is detected while recording motion detection, video will be stored in the "event" folder with a filename "parking".

Enable/Disable voice recording

1. This function is used for enabling/disabling voice recording.
2. When you press the ● button for 2 seconds, you can enable or disable voice recording along with voice guidance.
3. When this function is enabled (Ding~), voice recording is unavailable. When this function is disabled (Ding-Dong~), voice recording is available.

Playing video (playing on the GPS navigation device)



This function is used when you view the video footage recorded in an accident.

1. To start Video Playback mode when the power is connected, the black box Video Out and AV-IN of the navigation device must be connected with the signal cable.
2. When you press and hold down the ● button for 10 seconds, the color of the ▼ button LED changes to purple along with voice guidance, and the mode changes to Video Playback mode.
3. All video files are played in order from the latest files to the oldest ones, regardless of the shooting modes. (All video files in the normal, event and camcorder folders are played.)
4. Recently recorded video files are automatically played 3 or 4 seconds after switching to Playback mode.
5. The simple menu is displayed along with the video on the AV-IN screen of the navigation device. (Audio is not supported when playing the navigation device.)

Descriptions of video playback screen

When you press the ● button for 10 seconds in Normal Recording mode, it switches to Video Playback mode and the latest video file is played automatically as shown above.

1. PREVIOUS: If you press the ● button while playing a recorded video file, the previous video file will play automatically.
2. NEXT: If you press the ▼ button while playing a recorded video file, the next video file will play automatically.
3. REPEAT: If you press and hold down the ▼ button, the current video file will replay from the beginning.
4. EXIT: If you press and hold down the ● button, Video Playback mode stops. The black box then reboots and switches to Normal Recording mode.

2-3 Status alarms

Booting sound & Start recording	"Ding-Dong~ Video recording starts."	**Starting manual recording**	"Cha-Re-Rook" (sound of projector)
Removing power	"Ding-Dong~"	**USB connection guidance sound**	"Ding-Dong~ Ready for USB mode Push the triangle button for 2 seconds."
Faulty memory sound	"Beep~ Check your memory card."	**Recording starts in Parking mode**	"Ding-Dong~ Parking mode."
Recording in Shock mode	"Beep~"	**USB mode**	"Ding-Dong~ USB mode."
Shooting	"Click~" (sound of shutter)	**Finishing sound**	"Ding-Dong~"
Video Playback mode	"Ding-Dong~ Video playback mode."	**Parking mode/Motion detection (event)**	Mute
Turning off microphone	"Ding~"	**Turning on microphone**	"Ding-Dong~~"
Resetting time	"Beep~"(Repeat 3 times)		

Attention

! When there is insufficient space for Normal recording, the old video files are deleted, and the new video files are stored.

! Fine Digital Inc. is not liable for any data loss or damage to the product due to a car accident or product failure which can occur in any circumstance.

Chapter 3

Menu

Chapter 03

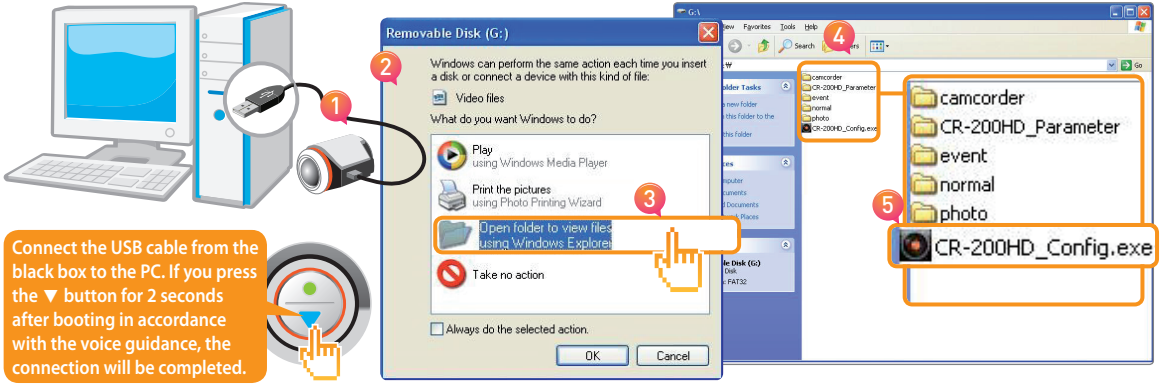
3-1. User setup program..... 38

- PC USB connection and execution
- configuration
- resolution and number of frames
- Acceleration sensor sensitivity / Driving mode and Parking mode
- Into Parking Mode
- Motion Detection in Parking Mode
- Brightness at night
- Audio settings
- System Time and Initialize

3-2. View recorded video and pictures..... 47

- View with Micro SDHC
- View with the black box

3-1 User setup program (PC USB connection and execution)



Connect the USB cable from the black box to the PC. If you press the ▼ button for 2 seconds after booting in accordance with the voice guidance, the connection will be completed.

1

Connect the USB cable from the black box to the PC.

2

If you press the ▼ button for 2 seconds after booting in accordance with the voice guidance, the black box switches to USB mode and is executed as a removable disk.

3

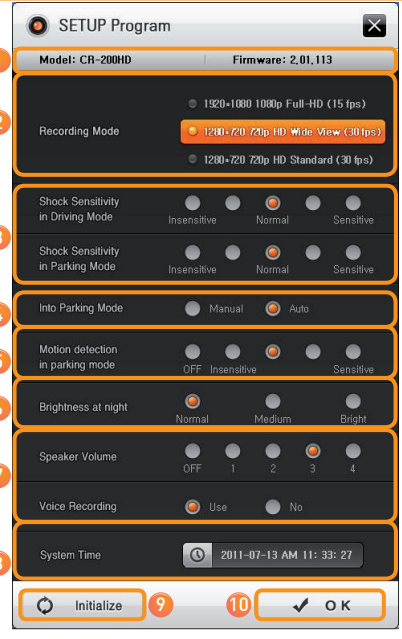
When you click "Open folder to view files using Windows Explorer", a folder and the executable files are displayed as shown in the figure.

4

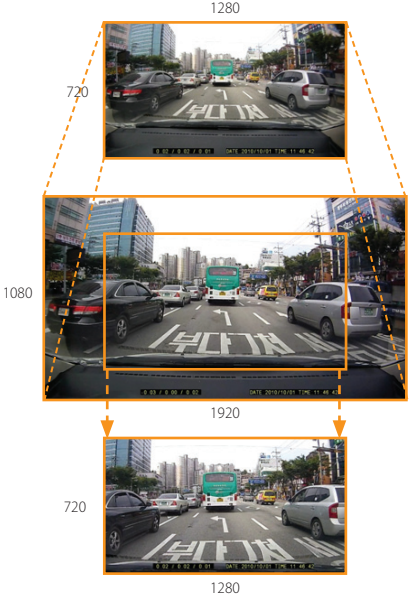
When you execute "CR-200HD_Config.exe", the "CR_configure.exe" setup program is copied onto the desktop and then executed.

3-1 User setup program (configuration)

	Name	Description
1	Information Display	Displays the model name and the firmware version.
2	Recording Mode	Allows you to set a recording mode.
3	Shock Sensitivity	Allows you to adjust the shock sensitivity in Driving and Parking modes.
4	Into Parking Mode	Allows you to select "Manual" or "Auto" (auto access 10 minutes after parking).
5	Motion detection in parking mode	Allows you to set the motion detection value in Parking mode.
6	Brightness at night	Allows you to adjust the brightness of the video at night in low lighting conditions.
7	Speaker Volume	Allows you to adjust the speaker volume and to set the microphone's voice recording.
8	System Time	Synchronize with the system time on the PC.
9	Initialize	Initializes the set values.
10	OK	Changed values are applied to the black box. (Make sure to reboot the product to apply the changes.)



3-1 User setup program (resolution and number of frames)



1280*720 720p HD Wide View (30 fps)

1280*720 16:9 wide HD 720p 30 frame/sec
116° horizontal angle of view

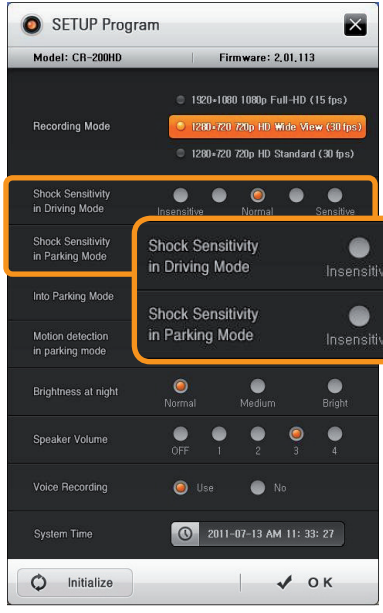
1920*1080 1080p Full-HD (15 fps)

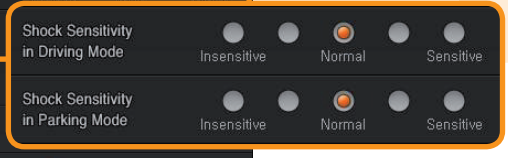
1920*1080 16:9 wide 1080p Full HD 15 frame/sec
116° horizontal angle of view

1280*720 720p HD Standard (30 fps)

1280*720 16:9 wide HD 30 frame/sec
68° horizontal angle of view

3-1 User setup program (Acceleration sensor sensitivity / Driving mode and Parking mode)

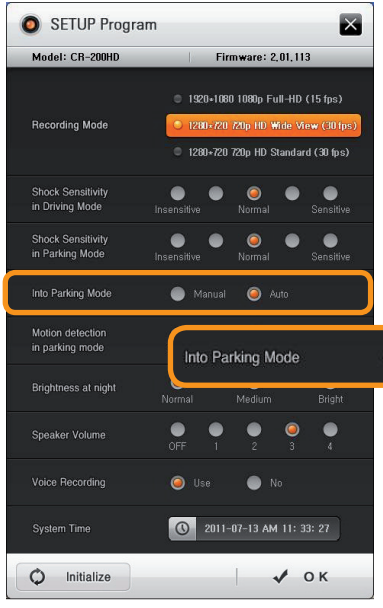




Note

- The acceleration sensor settings comprise two modes.
- Shock Sensitivity in Driving Mode is for sensitivity to impact while driving.
- Shock Sensitivity in Parking Mode is for sensitivity to impact when parked.
- Shock sensitivity is divided into 5 levels: Insensitive, Normal and Sensitive. You can set the shock sensitivity.

3-1 User setup program (Into Parking Mode)



Note

- ! This mode is used for accessing Parking mode.
- ! You can select "Manual" or "Auto" to access Parking mode.
- ! If you set it to "Manual", you need to press the ▼ button for 1 second to access Parking mode.
- ! If you set it to "Auto", the mode will be change to Parking mode automatically if there is no movement of the vehicle for 10 minutes. You can also press the ▼ button for 1 second to change to Parking mode.

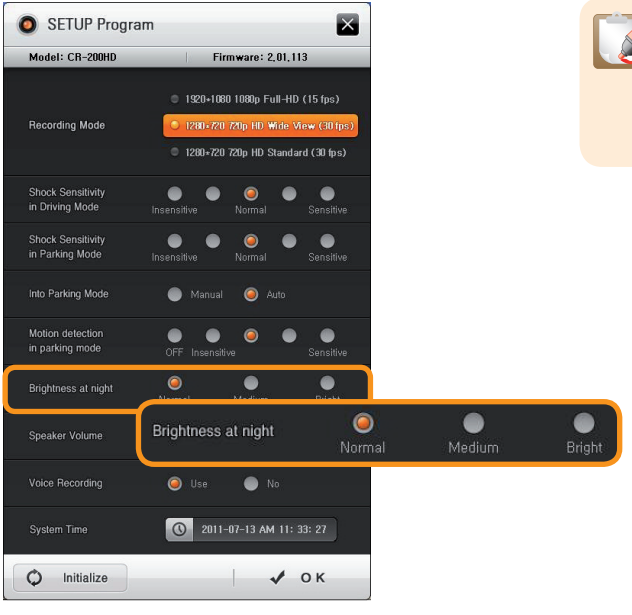
3-1 User setup program (Motion Detection in Parking Mode)

Note

! You can set the motion detection value.

! The motion sensitivity is divided into 5 levels: OFF, Sensitive and Insensitive. You can set the motion sensitivity. (Set it to "Insensitive" if you wish to record only when there is a big change.)

3-1 User setup program (Brightness at night)



Note

! You can set the brightness at night.

! The setting is divided into 3 levels: Normal, Medium and Bright. You can set the brightness. (If you set it to 'Bright", color degradation or color noise may occur.)

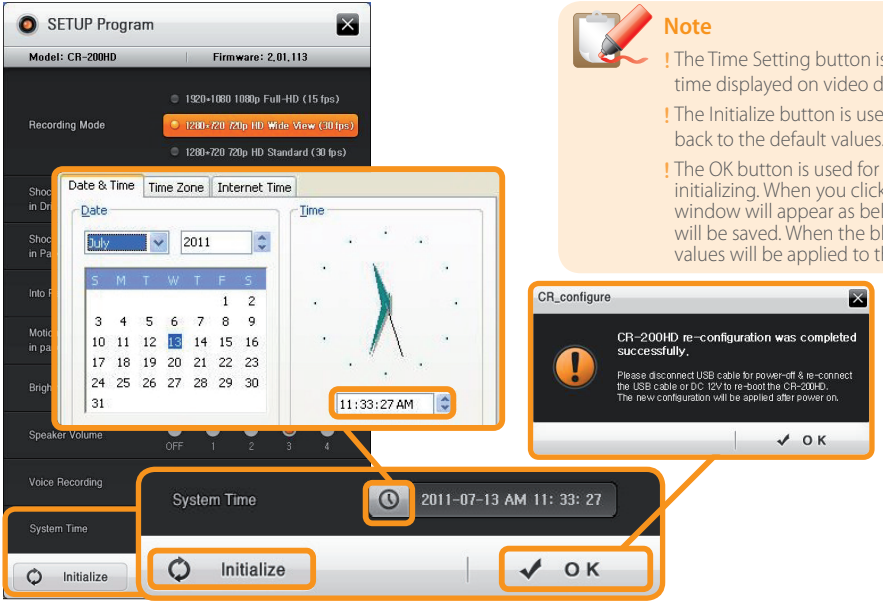
3-1 User setup program (Audio Settings)

Note

! The speaker volume is used for adjusting the volume of the alarms that occur during booting and recording. [5 levels: OFF,1, 2, 3 and 4]

! Voice recording is used for recording the surrounding sounds that occur during recording. [Use/ No]

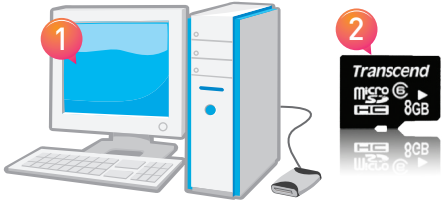
3-1 User setup program (Setting System Time and Initialize)

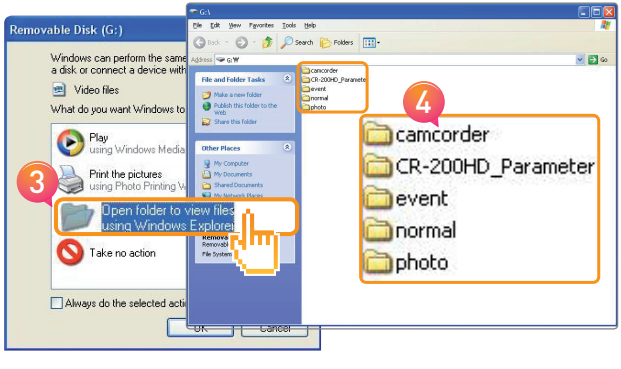


Note

- The Time Setting button is used for setting the date and time displayed on video during recording.
- The Initialize button is used for setting the user set values back to the default values.
- The OK button is used for changing settings and initializing. When you click the OK button, a pop-up window will appear as below and the changed values will be saved. When the black box reboots, the changed values will be applied to the black box.

3-2 View video and pictures





View with Micro SDHC

1. Remove the Micro SDHC memory card from the black box and put into the micro SDHC adapter. [The Micro SDHC adapter is provided]. Use the memory card reader for the connection with a PC.
2. When you connect micro SDHC card to a PC, it is executed as a removable disk.
3. When you click "Open folder to view files using Windows Explorer", a folder is displayed.
4. Open the folder and check the contents.
   "camcorder = Manual Recording"
   "event = Shock Recording"
   "normal = Normal Recording"
   "photo = Photos"
5. Make sure that you back up important video on a PC or a storage device.
   ※ Video is divided into 3 types and saved in the "event" folder.
   xx-xx_event: Impact during driving
   xx-xx_parking: Impact when parked
   xx-xx_motion: Motion detection when parked

3-2 View video and pictures

View with the black box

1. Connect the black box to the PC with the USB cable. [The black box boots up with USB 5V without additional power.]
2. If you press the ▽ button for 2 seconds after booting in accordance with the voice guidance, the black box switches to USB mode and is executed as a removable disk.
3. When you click "Open folder to view files using Windows Explorer", a folder will be displayed.
4. Open the folder and check the contents.
   "camcorder = Manual Recording"
   "event = Shock Recording"
   "normal = Normal Recording"
   "photo = Photos"
5. Make sure that you back up important video on a PC or a storage device.

※ Video is divided into 3 types and saved in the "event" folder.
xx-xx_event: Impact during driving
xx-xx_parking: Impact when parked
xx-xx_motion: Motion detection when parked

Note ! If the voltage of the built-in battery is low, the red LED flashes for max. 60 seconds. When the battery is charged for basic operation, the black box boots up.

Chapter 4

Additional Information

Chapter 04

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4-2. Customer support 51

- FAQ

4-1 Specifications

Item	Specifications		Remarks
Model name	Fine Digital CR-200HD		
Color/ Dimensions/ Weight	White/ 39 mm x 64 mm x 50 mm/ 88 g		Deco
Memory capacity	Micro SDHC	4 GB/ 8 GB/ 16 GB	Class 6 recommended
Recording methods	Normal recording	Supported	Records video in 3 minute intervals.
	Shock detection recording	Supported	Records video 10 seconds before and 30 seconds after impact (in total 40 seconds).
	Manual recording	Supported	Records video 10 seconds before and 2 minutes 50 seconds after impact
	Parking recording (recording upon impact)	Supported	Records video 10 seconds before and 30 seconds after impact (in total 40 seconds). An additional device needs to be installed in vehicles that do not support uninterrupted power.
	Capturing images	Supported	1920*1080, 2 MP 1280*720, 1 MP
Angle of view	Diagonal 133°/ Horizontal 116°/ Vertical 68°		
Video	1280x720 HD	HD 720p 30fps	16:9 WIDE / 1920x1080 FULL HD 15fps
Audio	Built-in microphone		
	Speaker	8 ohm	
Acceleration sensor	3-Axis acceleration sensor	+2 g / -2 g	
Input power	DC 12 V		USB 5V supported
Battery	Built-in battery	150 mAh	Record video for max. 10 minutes.
Power consumption	Max. 2 W		Max. 3 W when charging
Operating/ Storage temperature	Operating temperature: -10℃ ~ 60℃ / Storage temperature: -20℃ ~ 70℃		
Interface	USB 1.1/2.0 Mini B type	DC JACK 3.5Φ	
Video output	TV/ Navigation device output	Supported	NTSC / PAL

4-2 Customer support - FAQ

The black box does not turn on.	● Check if the power is connected. [Cigarette jack cord] ● Check if the battery is charged. ● If the product is not working at all, press the RESET button with the tip of a clip. (Resetting only blocks power, and thus does not affect the product and stored video.)
Buttons are not working.	● Check if the black box is in the video recording state after booting. ● If the buttons are not working in the recording state, request after sales service.
The black box does not boot up.	● Check if the cigarette jack cord is the original one. ● Check if the power LED of the cigar jack cord is on. ● Check if the Micro SDHC memory card has been inserted into the black box properly. ● Check if the external memory card format is FAT32. (NTFS or exFAT are not recognized.) ● Check if the external memory card is faulty or not an original component.
Booting is complete, but there is no sound.	● On the Setup Program screen, check if the alarm volume is set to its lowest. ● If there is still no sound after adjusting the volume, request after sales service.
Recorded video does not play.	● Video may not play depending on the characteristics of the video player. ● If the problem still persists, request after sales service.

4-2 Customer support - FAQ

My PC does not recognize the black box.	● If you press the ▽ button for 2 seconds after connecting the black box to the PC, it switches to USB mode with an alarm. ● If the black box does not turn on when connected with the PC or does not switch to USB mode through the above method, press the RESET button on the left-hand side of the black box DC jack (in the forward direction of the DC-12V letters). ● If the connection often disconnects or becomes unstable, connect the black box directly to a USB port of the PC without using a USB hub. A connection through the USB hub may not provide stable power to the black box.
The black box is recognized on the PC USB, but is disconnected.	● Connect the black box to the USB port of the PC main board if possible. ● Remove any other USB devices connected to the PC. Connect the black box only or connect it to the USB host card. ● Check if the same problem occurs on other PCs. If so, request after sales service.
The black box is connected to the USB port of a navigation device, but it is not working.	● It is not recommended to use any power source other than a 12V cigarette jack or a PC USB connection. ● Navigation device USB ports vary from manufacturer to manufacturer, and thus they may cause malfunctioning of the black box or cause power to become unstable.
There is no recorded video image.	● Check if the black box booted properly. ● If only audio plays without a video image display, request after sales service.
I would like to change the external memory card.	● The physical characteristics of Micro SDHC cards differ from manufacturer to manufacturer. Some memory cards may not be compatible with Fine Digital's black box. When you replace the Micro SDHC card, purchase an original memory card at a shopping mall or authorized agency. [Fine Digital Inc. is not liable for any damage incurring from using a non-original memory card.]

Memo

FINE DIGITAL

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